REMARKS

This Amendment/Response is prepared in response to the Office action mailed on 20 March 2008 (Paper No. 20080315).

Claim Rejection Under 35 U.S.C. § 101

Claim 20 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

MPEP §2106.01 states,

> Data structures not claimed as embodied in computer-readable media are descriptive material *per se* and are not statutory because they are not capable of causing functional change in the computer. See, e.g., *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure *per se* held nonstatutory). Such claimed data structures do not define any structural and functional interrelationships between the data structure and other claimed aspects of the invention which permit the data structure's functionality to be realized. In contrast, **a claimed computer-readable medium encoded with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory**.
>
> Similarly, computer programs claimed as computer listings *per se*, i.e., the descriptions or expressions of the programs, are not physical "things." They are neither computer components nor statutory processes, as they are not "acts" being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer which permit the computer program's functionality to be realized. In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See *Lowry*, 32 F.3d at 1583-84, 32 USPQ2d at 1035. (Emphasis Added)

Therefore, the applicant cannot agree with the Examiner that a "data structure" need be executable by a computer to be statutory. A data structure, by its very nature, cannot be executed by a computer, but a computer program may use a data structure to control the operation of a computer. Therefore, claim 20 has been amended to indicate that the data structure claimed may be used by a computer program to control the operation of a computer.

Therefore, withdrawal of the rejection of Claim 20 under 35 U.S.C. 101 is respectfully requested.

Claim Rejection Under 35 U.S.C. § 102

Claims 1-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Asano (US 2001/0013106).

The present invention relates to a method for automatically tracing an interface for an exchange and a subscriber network, includes setting an operator, reference, a procedure for notifying an event are defined, so that a user could perform interface tracing for an exchange and a subscriber network using a network management system such as EMS. The method for automatically tracing a subscriber applied to a communication system, includes: receiving setting particulars from an operator in order to perform tracing of a subscriber with respect to an interface for LE (Local Exchange) and a subscriber network (AN: Access network); checking setting particulars of the operator by receiving trace request for the interface from the operator, performing tracing relevant to the setting particulars, providing tracing results to the operator; and providing information for an event so that the operator could check the information upon occurrence of a trace event at an interface relevant to the setting particulars of the operator. Therefore, all the systems having, in their inside, an interface protocol for an exchange and a

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subscriber network, such as a V5.2 protocol, could perform cause tracking upon generation of problems in a more easy and convenient manner when problems are generated upon matching due to characteristics of each AN or an LE and a system vendor.

The primary reference cited by the Examiner is Asano (U.S. Patent Publication No. 2001/0013106), which relates to in a subscriber testing system, a V5 interface protocol is used as a communication protocol. A switch includes a processing unit for transmitting to a communication node a piece of test specifying information, inputted from a maintenance/operation terminal, for indicating a subscriber test for a subscriber's line and subscriber circuit that correspond to an accommodated subscriber by use of specifying information of a message type based on the V5 interface protocol. The communication node includes a processing unit for making a testing device execute the subscriber test on the basis of the test specifying information received via a logical link from the switch, and sending test result information for informing of a result of the test back to the switch by use of specifying information of a message type based on the V5 interface protocol.

However, Asano fails to describe the details required to perform a trace. Such items as the data structure employed in the present invention are not disclosed at all.

Contrary to the Examiner's assertions Asano fails to describe in claim 20 "a third field containing data representing setting the trace to <u>on or off</u>, setting a corresponding <u>port type</u>, and to set whether to describe a first value when the port identification is input as a result of checking, <u>determining whether to add the first value to the back of a message</u>". Further, Asano does not describe "a fourth field containing data representing <u>when a port identification is **not** input</u> as a result of checking whether a port identification is input after receiving the requested identification". Therefore, the Examiner's rejection of claim 20 is respectfully traversed.

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With regard to claim 15, Asano again fails to disclose "setting the trace to <u>on or off</u>, setting a corresponding port type, and to set whether to describe a first value when the port identification is input as a result of checking, <u>determining whether to add the first value to the back of a message; when a port identification is not input</u> as a result of checking whether a port identification is input after receiving the requested identification." Therefore, the Examiner's rejection of claim 15 is respectfully traversed.

Independent claims 1 and 19 have been amended to include the action taken when a port identification is not supplied. Therefore, independent claims 1 and 19 patentably distinguish over the prior art by reciting, as exemplified by claim 1,

> "A method for automatically tracing an interface for an exchange and a subscriber network comprising the steps of: receiving setting particulars from an operator in order to perform a trace of a subscriber with respect to an interface for a local exchange and a subscriber network; checking the setting particulars of the operator by receiving a trace request for the interface from the operator, performing trace relevant to the setting particulars, providing trace results to the operator; and providing information for an event accommodating the operator to check the information upon occurrence of a trace event at an interface relevant to the setting particulars of the operator, <u>wherein the setting particular includes determining whether to add the first value to the back of a message when a port identification is not input as a result of checking whether a port identification is input after receiving the requested identification.</u>" (Emphasis Added)

Therefore, withdrawal of the rejection of claims 1-20 under 35 U.S.C. 102(b) as being anticipated by Asano (US 2001/0013106) is respectfully requested.

Conclusion

Additional references were cited by the Examiner but not utilized in the rejection of the claims and accordingly, no further comment on these references is necessary.

No other issues remaining, reconsideration and favorable action upon all of the claims now present in the application is respectfully requested. Should any questions remain unresolved, the Examiner is requested to telephone Applicants' undersigned attorney.

No fee is incurred by this Amendment.

Respectfully submitted,

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